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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,468	08/23/2001	Tatsuya Oka	P20961	8436

7055 7590 07/03/2002

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EXAMINER

HYEON, HAE M

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/934,468

Applicant(s)

OKA ET AL.

Examiner

Hae Moon Hyeon

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 . 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, and 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (6,224,397 B1) in view of Murakami (6,354,846 B1).

Nakamura discloses an electrical connector housing 11 comprising a first shell 21, a second shell 22, connector mounts 27, fuse or relay mounts 28, and a circuitry 20. The first shell 21 is mountable on the second shell 22. The first shell 21 is provided with the connector mounts 27 to be fitted with connectors 15 and fuse or relay mounts 28 to be fitted with fuse or relays 14. The electrical connector housing contains a busbar stack 23, which includes a connector circuitry module containing connector-connecting circuits connected to the connector mount 27 and a fuse circuitry module formed integrally with relay circuitry module containing fuse and relay connecting circuits connected to the fuse and relay mounts 28. Busbars 23 connects to both the fuse and the relay. The busbars 23 includes tabs 26 having notches configured to hold the fuses and the relays (see Fig. 4). However, Nakamura does not disclose the material used to form the busbars 23.

Murakami discloses an electrical connector housing 10 having busbars 15 formed from an electrically conductive metal plate of brass, pure copper, or copper alloy into a desired wiring shape.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the busbars taught by Nakamura such that it would be formed from copper alloy as taught by Muakami because it only deals with using a preferred material from the known materials. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura and Murakami as applied to claims 1, 2, and 4-12 above, and further in view of Hara (5,578,008), Fajt (4,439,801), or Pugh et al (4,415,830).

Claim 3 recites that the resilient conductor is iron. However, Murakami only discloses copper alloy. On the other hand, Hara discloses a wire made of iron, platinum-rhodium, tungsten, or nitrol. Fajt discloses a conductor made of iron with copper coated. Therefore, Fajt teaches the use of copper and iron together. Lastly, Pugh teaches an electric lamp having iron wires.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to the conductor taught by Nakamura or Murakami such that it would be made of iron as taught by Hara, Fajt or Pugh because copper and iron are interchangeable since both elements are conductive. Furthermore, the official notice is taken that it is a scientific fact that iron is stiffer, rigid, and stronger than copper. Also, it is well known that iron is conductive and can be exchanged with copper without changing the function of a device. Thus, a person having ordinary skill in the art knows to use iron over copper for a conductor that requires a strength stronger than copper.

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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,877,944 by Onizuka, US Patent No. 6,126,457 by Smith et al., US Patent No. 6,270,360 B1 by Yanase, and US Patent No. 6,309,226 B1 by Nakatani discloses an electrical connector housing.

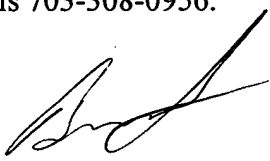
US Patent Application Publication No. 2001/0012736 A1 by Niyajima et al discloses busbars made of copper alloy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae Moon Hyeon whose telephone number is 703-308-4802. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

hnh hnh
June 29, 2002


BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800